

RECEIVED

APR 25 2001

1632

TECH CENTER 1600/2900

#17

4-27-01  
P.ZRAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/484,629ADATE: 04/17/2001  
TIME: 20:04:31Input Set : A:\robinson.txt  
Output Set: N:\CRF3\04172001\I484629A.raw

3 <110> APPLICANT: Medical Research Council  
 5 <120> TITLE OF INVENTION: Obesity Gene  
 7 <130> FILE REFERENCE: 18396/1140  
 9 <140> CURRENT APPLICATION NUMBER: 09/484,629A  
 10 <141> CURRENT FILING DATE: 2000-01-18  
 12 <150> PRIOR APPLICATION NUMBER: GB 9910522.3  
 13 <151> PRIOR FILING DATE: 1999-05-06  
 15 <160> NUMBER OF SEQ ID NOS: 46  
 17 <170> SOFTWARE: PatentIn version 3.0  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 924  
 21 <212> TYPE: DNA  
 22 <213> ORGANISM: Rattus sp.  
 24 <220> FEATURE:  
 25 <221> NAME/KEY: CDS  
 26 <222> LOCATION: (5)..(607)  
 28 <400> SEQUENCE: 1

29	tgtc	'atg	tgg	cgg	gct	ttg	aac	cgc	ctg	gcc	gcg	ccc	ggg	ggc	cag	49
30	Met	Leu	Arg	Ala	Leu	Asn	Arg	Leu	Ala	Ala	Arg	Pro	Gly	Gly	Gln	
31	1								5	10					15	
33	ccc	cca	acc	ctg	ctc	ctt	ctg	ccc	gtg	cgc	ggc	cgc	aag	acc	cgc	97
34	Pro	Pro	Thr	Leu	Leu	Leu	Leu	Pro	Val	Arg	Gly	Arg	Lys	Thr	Arg	His
35								20	25				30			
37	gat	ccg	cct	gcc	aag	tcc	aag	gtc	ggg	cgc	gtg	aaa	atg	cct	cct	145
38	Asp	Pro	Pro	Ala	Lys	Ser	Lys	Val	Gly	Arg	Val	Lys	Met	Pro	Pro	Ala
39					35			40				45				
41	gtg	gac	cct	gcf	gaa	ttg	ttc	gtg	ttg	acc	gag	cgc	tac	cga	cag	193
42	Val	Asp	Pro	Ala	Glu	Leu	Phe	Val	Leu	Thr	Glu	Arg	Tyr	Arg	Gln	Tyr
43								50	55			60				
45	cgg	gag	acg	gtg	cgc	gct	ctc	agg	cga	gag	ttc	aca	tgt	gag	gtg	241
46	Arg	Glu	Thr	Val	Arg	Ala	Leu	Arg	Arg	Glu	Phe	Thr	Leu	Glu	Val	Arg
47								65	70			75				
49	ggg	aaa	ttg	cac	gag	gcc	cga	gcc	ggg	gtt	ctg	gct	gag	cgc	aag	289
50	Gly	Lys	Leu	His	Glu	Ala	Arg	Ala	Gly	Val	Leu	Ala	Glu	Arg	Lys	Ala
51	80							85			90			95		
53	caa	gag	gcc	atc	aga	gag	cac	cag	gag	ctg	atg	gcc	tgg	aac	cgg	337
54	Gln	Glu	Ala	Ile	Arg	Glu	His	Gln	Glu	Leu	Met	Ala	Trp	Asn	Arg	Glu
55								100		105		110				
57	gag	aac	cgg	aga	ctg	cag	gaa	cta	cgg	ata	gct	agg	ttg	cag	ctc	385
58	Glu	Asn	Arg	Arg	Leu	Gln	Glu	Leu	Arg	Ile	Ala	Arg	Leu	Gln	Leu	Glu
59								115		120		125				
61	gca	cag	gcc	cag	gag	ctg	cgg	cag	gct	gag	gtc	cag	gcc	cag	agg	433
62	Ala	Gln	Ala	Gln	Glu	Leu	Arg	Gln	Ala	Glu	Val	Gln	Ala	Gln	Arg	Ala
63								130		135		140				
65	cag	gag	gag	cag	gag	gct	tgg	gtg	caa	ctg	aaa	gaa	caa	gaa	gtt	481
66	Gln	Glu	Gln	Ala	Trp	Val	Gln	Leu	Lys	Glu	Gln	Glu	Val	Leu	Lys	
67								145		150		155				

ENTERED

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/484,629A

DATE: 04/17/2001  
TIME: 20:04:31

Input Set : A:\robinson.txt  
Output Set: N:\CRF3\04172001\I484629A.raw

69	ctg	cag	gag	gag	gcc	aaa	aac	ttc	atc	act	cg	gag	aac	ctg	gag	gca	529
70	Leu	Gln	Glu	Glu	Ala	Lys	Asn	Phe	Ile	Thr	Arg	Glu	Asn	Leu	Glu	Ala	
71	160		165						170					175			
73	cgg	ata	gaa	gag	gcc	ttg	gac	tct	ccg	aag	agt	tat	aac	tgg	gcg	gtc	577
74	Arg	Ile	Glu	Glu	Ala	Leu	Asp	Ser	Pro	Lys	Ser	Tyr	Asn	Trp	Ala	Val	
75			180						185				190				
77	acc	aaa	gaa	ggg	cag	gtg	gtc	agg	aac	tga	'gaacagaggc	ctctcaggcc					627
78	Thr	Lys	Glu	Gly	Gln	Val	Val	Arg	Asn								
79			195				200										
81	caaataagga	cagtgcgtgc	ctaggactg	gatattgggg	tagaaattgg	tgcatccag											687
83	gagggtggca	cagccttgc	cagacagcc	cccattcatt	ctagatttg	caccaggtat											747
85	agtacctgtt	ctgacaccac	atacaaactc	cgacacat	taaactctgg	gaagttccta											807
87	tcacacagaa	gatcagactg	gactgtcccc	tctagaagcc	aagagctgtc	tcctgagttt											867
89	cttggatag	tgtgagccca	atgtttccctg	cttttataaa	taaactattt	gaaagca											924
92	<210>	SEQ ID NO:	2														
93	<211>	LENGTH:	200														
94	<212>	TYPE:	PRT														
95	<213>	ORGANISM:	Rattus sp.														
97	<400>	SEQUENCE:	2														
99	Met	Leu	Arg	Ala	Leu	Asn	Arg	Leu	Ala	Ala	Arg	Pro	Gly	Gly	Gln	Pro	
100	1				5				10				15				
103	Pro	Thr	Leu	Leu	Leu	Leu	Pro	Val	Arg	Gly	Arg	Lys	Thr	Arg	His	Asp	
104					20				25				30				
107	Pro	Pro	Ala	Lys	Ser	Lys	Val	Gly	Arg	Val	Lys	Met	Pro	Pro	Ala	Val	
108					35				40				45				
111	Asp	Pro	Ala	Glu	Leu	Phe	Val	Leu	Thr	Glu	Arg	Tyr	Arg	Gln	Tyr	Arg	
112					50				55				60				
115	Glu	Thr	Val	Arg	Ala	Leu	Arg	Arg	Glu	Phe	Thr	Leu	Glu	Val	Arg	Gly	
116					65				70				75				80
119	Lys	Leu	His	Glu	Ala	Arg	Ala	Gly	Val	Leu	Ala	Glu	Arg	Lys	Ala	Gln	
120					85				90				95				
123	Glu	Ala	Ile	Arg	Glu	His	Gln	Glu	Leu	Met	Ala	Trp	Asn	Arg	Glu	Glu	
124					100				105				110				
127	Asn	Arg	Arg	Leu	Gln	Glu	Leu	Arg	Ile	Ala	Arg	Leu	Gln	Leu	Glu	Ala	
128					115				120				125				
131	Gln	Ala	Gln	Glu	Leu	Arg	Gln	Ala	Glu	Val	Gln	Ala	Gln	Arg	Ala	Gln	
132					130				135				140				
135	Glu	Glu	Gln	Ala	Trp	Val	Gln	Leu	Lys	Glu	Gln	Glu	Val	Leu	Lys	Leu	
136					145				150				155				160
139	Gln	Glu	Glu	Ala	Lys	Asn	Phe	Ile	Thr	Arg	Glu	Asn	Leu	Glu	Ala	Arg	
140					165				170				175				
143	Ile	Glu	Glu	Ala	Leu	Asp	Ser	Pro	Lys	Ser	Tyr	Asn	Trp	Ala	Val	Thr	
144					180				185				190				
147	Lys	Glu	Gly	Gln	Val	Val	Arg	Asn									
148					195				200								
151	<210>	SEQ ID NO:	3														
152	<211>	LENGTH:	998														
153	<212>	TYPE:	DNA														
154	<213>	ORGANISM:	Rattus sp.														

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/484,629A

DATE: 04/17/2001  
TIME: 20:04:31

Input Set : A:\robinson.txt  
Output Set: N:\CRF3\04172001\I484629A.raw

156 <220> FEATURE:  
157 <221> NAME/KEY: CDS  
158 <222> LOCATION: (1)..(996)  
160 <400> SEQUENCE: 3  
161 atg cta cgc gcg ctg agc cgc ctg ggc gcg ggg acc ccg tgc agg ccc 48  
162 Met Leu Arg Ala Leu Ser Arg Leu Gly Ala Gly Thr Pro Cys Arg Pro  
163 1 5 10 15  
164 20 25 30  
165 35 40 45 96  
166 50 55 60  
167 65 70 75 144  
168 85 90 95  
169 100 105 110 192  
170 115 120 125  
171 130 135 140 240  
172 145 150 155 160  
173 165 170 175 288  
174 180 185 190 336  
175 195 200 205 384  
176 210 215 220 432  
177 225 230 235 480  
178 240 245 250 528  
179 255 260 265 576  
180 270 275 280 624  
181 285 290 295 672  
182 300 305 310 720  
183 315 320 325  
184 330 335 340  
185 345 350 355  
186 360 365 370  
187 375 380 385  
188 390 395 398  
189 400 405 408  
190 410 415 418  
191 420 425 428  
192 430 435 438  
193 440 445 448  
194 450 455 458  
195 460 465 468  
196 470 475 478  
197 480 485 488  
198 490 495 498  
199 500 505 508  
200 510 515 518  
201 520 525 528  
202 530 535 538  
203 540 545 548  
204 550 555 558  
205 560 565 568  
206 570 575 578  
207 580 585 588  
208 590 595 598  
209 600 605 608  
210 610 615 618  
211 620 625 628  
212 630 635 638  
213 640 645 648  
214 650 655 658  
215 660 665 668  
216 670 675 678  
217 680 685 688  
218 690 695 698  
219 700 705 708

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/484,629A

DATE: 04/17/2001  
TIME: 20:04:31Input Set : A:\robinson.txt  
Output Set: N:\CRF3\04172001\I484629A.raw

221	ttc	agc	ctt	atc	cag	cac	agc	ctt	cac	gtt	ttg	ccc	tct	gct	gtc	acc	768
222	Phe	Ser	Leu	Ile	Gln	His	Ser	Leu	His	Val	Leu	Pro	Ser	Ala	Val	Thr	
223	240				245					250							816
225	act	tgg	tca	gaa	act	tcc	aaa	cgc	agt	gcc	ctg	ttc	tgc	cgg	tgt	gta	
226	Thr	Trp	Ser	Glu	Thr	Ser	Lys	Arg	Ser	Ala	Leu	Phe	Cys	Arg	Cys	Val	
227	255				260					265							864
229	aag	cct	cag	cgc	acc	agg	aga	ccc	tag	agt	ggt	ttc	cat	ctc	aca	gag	
230	Lys	Pro	Gln	Arg	Thr	Arg	Arg	Pro		Ser	Gly	Phe	His	Leu	Thr	Glu	
231	270				275					280							912
233	aat	cag	aca	ggc	cac	agc	ccc	ctc	agg	cag	cca	ggt	cat	ctg	agt	atc	
234	Asn	Gln	Thr	Gly	His	Ser	Pro	Leu	Arg	Gln	Pro	Gly	His	Leu	Ser	Ile	
235	285				290					295							300
237	att	aag	agt	agt	gat	ggg	aag	att	aca	gtc	tga	ggg	cca	aac	gtg	cct	
238	Ile	Lys	Ser	Ser	Asp	Gly	Lys	Ile	Thr	Val		Gly	Pro	Asn	Val	Pro	
239	305				310					315							960
241	gct	tcc	tgt	ttt	tgt	aaa	taa	agt	ttt	gtt	gga	aca	ca				998
242	Ala	Ser	Cys	Phe	Cys	Lys		Ser	Phe	Val	Gly	Thr					
243					320					325							
246	<210>	SEQ	ID	NO:	4												
247	<211>	LENGTH:	205														
248	<212>	TYPE:	PRT														
249	<213>	ORGANISM:	Rattus	sp.													
251	<400>	SEQUENCE:	4														
253	Met	Leu	Arg	Ala	Leu	Ser	Arg	Leu	Gly	Ala	Gly	Thr	Pro	Cys	Arg	Pro	
254	1				5				10			15					
257	Arg	Ala	Pro	Leu	Val	Leu	Pro	Ala	Arg	Gly	Arg	Lys	Thr	Arg	His	Asp	
258					20				25			30					
261	Pro	Leu	Ala	Lys	Ser	Lys	Ile	Glu	Arg	Val	Asn	Met	Pro	Pro	Ala	Val	
262					35				40			45					
265	Asp	Pro	Ala	Glu	Phe	Phe	Val	Leu	Met	Glu	Arg	Tyr	Gln	His	Tyr	Arg	
266					50				55			60					
269	Gln	Thr	Val	Arg	Ala	Leu	Arg	Met	Glu	Phe	Val	Ser	Glu	Val	Gln	Arg	
270	65					70				75			80				
273	Lys	Val	His	Glu	Ala	Arg	Ala	Gly	Val	Leu	Ala	Glu	Arg	Lys	Ala	Leu	
274					85				90			95					
277	Lys	Asp	Ala	Ala	Glu	His	Arg	Glu	Leu	Met	Ala	Trp	Asn	Gln	Ala	Glu	
278					100				105			110					
281	Asn	Arg	Arg	Leu	His	Glu	Leu	Arg	Ile	Ala	Arg	Leu	Arg	Gln	Glu	Glu	
282					115				120			125					
285	Arg	Glu	Gln	Glu	Gln	Arg	Gln	Ala	Leu	Glu	Gln	Ala	Arg	Lys	Ala	Glu	
286					130				135			140					
289	Glu	Val	Gln	Ala	Trp	Ala	Gln	Arg	Lys	Glu	Arg	Glu	Val	Leu	Gln	Leu	
290	145					150				155			160				
293	Gln	Glu	Glu	Val	Lys	Asn	Phe	Ile	Thr	Arg	Glu	Asn	Leu	Glu	Ala	Arg	
294					165				170			175					
297	Val	Glu	Ala	Ala	Leu	Asp	Ser	Arg	Lys	Asn	Tyr	Asn	Trp	Ala	Ile	Thr	
298					180				185			190					
301	Arg	Glu	Gly	Leu	Val	Val	Arg	Pro	Gln	Arg	Arg	Asp	Ser				
302					195				200			205					

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/484,629A

DATE: 04/17/2001  
TIME: 20:04:31

Input Set : A:\robinson.txt  
Output Set: N:\CRF3\04172001\I484629A.raw

305 <210> SEQ ID NO: 5  
306 <211> LENGTH: 24  
307 <212> TYPE: PRT  
308 <213> ORGANISM: Rattus sp.  
310 <400> SEQUENCE: 5  
312 Gly Pro Ser Lys Asp Ser Ala Arg Gln Gly Pro Cys Met Tyr His Gly  
313 1 5 10 15  
316 Gly Arg Val Gly Pro Asp Leu Glu  
317 20  
320 <210> SEQ ID NO: 6  
321 <211> LENGTH: 6  
322 <212> TYPE: PRT  
323 <213> ORGANISM: Rattus sp.  
325 <400> SEQUENCE: 6  
327 Ser Ser Trp Cys Cys Leu  
328 1 5  
331 <210> SEQ ID NO: 7  
332 <211> LENGTH: 42  
333 <212> TYPE: PRT  
334 <213> ORGANISM: Rattus sp.  
336 <400> SEQUENCE: 7  
338 Gly Arg Phe Ser Leu Ile Gln His Ser Leu His Val Leu Pro Ser Ala  
339 1 5 10 15  
342 Val Thr Thr Trp Ser Glu Thr Ser Lys Arg Ser Ala Leu Phe Cys Arg  
343 20 25 30  
346 Cys Val Lys Pro Gln Arg Thr Arg Arg Pro  
347 35 40  
350 <210> SEQ ID NO: 8  
351 <211> LENGTH: 33  
352 <212> TYPE: PRT  
353 <213> ORGANISM: Rattus sp.  
355 <400> SEQUENCE: 8  
357 Ser Gly Phe His Leu Thr Glu Asn Gln Thr Gly His Ser Pro Leu Arg  
358 1 5 10 15  
361 Gln Pro Gly His Leu Ser Ile Ile Lys Ser Ser Asp Gly Lys Ile Thr  
362 20 25 30  
365 Val  
369 <210> SEQ ID NO: 9  
370 <211> LENGTH: 11  
371 <212> TYPE: PRT  
372 <213> ORGANISM: Rattus sp.  
374 <400> SEQUENCE: 9  
376 Gly Pro Asn Val Pro Ala Ser Cys Phe Cys Lys  
377 1 5 10  
380 <210> SEQ ID NO: 10  
381 <211> LENGTH: 5  
382 <212> TYPE: PRT  
383 <213> ORGANISM: Rattus sp.  
385 <400> SEQUENCE: 10

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/484,629A

DATE: 04/17/2001

TIME: 20:04:32

Input Set : A:\robinson.txt

Output Set: N:\CRF3\04172001\I484629A.raw